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(54) **MULTI-ACCESS COMMUNICATION SYSTEM AND UPLINK BAND ALLOCATING METHOD**

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This patent is subject to a terminal disclaimer.

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(52) **U.S. Cl.** ..... **725/126; 725/95; 725/96; 725/121; 370/322; 370/348; 370/444; 370/449; 370/455; 370/468**

(58) **Field of Search** ..... **725/95, 96, 121, 725/126; 370/322, 348, 444, 449, 455, 468**

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(57)

**ABSTRACT**

In a multi-access communication system where a center station dynamically allocates the band of an uplink to subscriber stations, the band of an uplink is flexibly and efficiently allocated when the up-service quality is insured. When requesting a service quality assurance, the subscriber station 30 transmits the service quality request information 210 to the center station 10. The center station 10 transmits the identifier allocation information 310 to the subscriber station 30 to allocate an identifier. When the service priority is high, the center station 10 periodically transmits the reservation transmission permission information 410 and 411 to the subscriber station 3 at the reservation permission transmission intervals 910, thus checking for the presence or absence of reservation information. Waste consumption of the up-band can be suppressed by periodically transmitting the reservation transmission permission information even if subscriber stations issue up-data at irregular intervals. The upper limit value of up-delay amount can be insured by adjusting the transmission period of reservation transmission permission information.

22 Claims, 14 Drawing Sheets

